

Indigenous Games and Knowledge Acquisition among Children (7-11 Years Old) of Moghamo in Cameroon

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ABSTRACT

This study investigated Indigenous games and knowledge acquisition among children aged 7 to 11 years of Moghamo in Cameroon. Many Cameroonian communities are experiencing a decline in cultural heritage due to modern influences and the imposition of Western values within our different educational agencies. The current educational system primarily emphasises sciences and modernity, which often neglects the importance of indigenous knowledge. The impacts of colonisation and religion have led many Africans to believe that true development can only stem from external sources, which diminish the value of local ideas and promotes a focus on exogenous development, including formal education. This study therefore focused on investigating the relationship between indigenous games and knowledge acquisition among children (7 to 11 years) old.

Methods: This study was carried out in Batibo Sub Division, Momo Division in the North-West Region of Cameroon. A concurrent mixed-method approach was used in this study, combining qualitative and quantitative data collection to give a thorough account of how well indigenous games leads to knowledge acquisition among children age 7 to 11 years. Using simple random and purposive sampling technique, 377 and 28 groups of parents were selected to participate in the study. A questionnaire was used to collect

quantitative data from children while a focus group discussion guide was used to collect qualitative data from parents. The quantitative data was analysed using percentages, frequencies, means and simple linear Regression was used to verify the hypothesis. Thematic analysis was used to analyse the qualitative data.

Findings: Simple linear regression analysis was conducted to evaluate the extent to which indigenous games could predict knowledge acquisition in children (7 – 11years). A data set encompassing 376 individuals was analysed, correlating indigenous games to respective knowledge acquisition. The average level of participation in indigenous games within the sample was 13.48 (SD = 3.625), and the average knowledge acquisition was 14.84 (SD = 3.973). The linear regression analysis revealed a statistically significant model ($F(1,375) = 117.733$, $p < .000$), with an R^2 value of 0.239 suggesting that 23.9% of the variance in knowledge acquisition was explained by participation in indigenous games among the sampled children.

Conclusion: From the results, the study concluded that indigenous games significantly influence the acquisition of knowledge among children within 7 and 11years old.

Recommendations: Based on the findings, some recommendations were made to parents, elders, educational stakeholders and elites of the communities as follows; parents should actively involve children in traditional games that are prevalent in the Moghamo culture. This engagement will help children learn cultural values and enhances cognitive and social skills. For example, games that involve counting or strategic thinking can reinforce numeracy and problem-solving skills.

KEYWORDS: Indigenous Games and Knowledge Acquisition

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I. INTRODUCTION

In Batibo traditional society, education of the young is not confined to formal schooling but is carried out through oral traditions, rituals, ceremonies and mentorship of parents, elders and titleholders. As pointed out by Nsamenang and Lamb (1995), in most African family traditions, children are directed and encouraged to perceive and partake in cultural and economic activities that emphasise socially diverse standards that help their cognitive and physical development. In the Batibo traditional community, knowledge is transmitted to the younger generation through a socialisation process and in this process, the curriculum is not segmented into subject areas (Nsamenang, 2005). Mentoring by peers, parents, elders, and experts play a crucial role as beginners improve their skills and understanding through participation with more skilled partners in culturally organized activities (Tchombe, 2019). Traditional education in Batibo society does not rely only on one expert but rather make use of the extended apprenticeship model. To understand how socio-cultural practices in Batibo influence the acquisition of knowledge, it best to present these concepts as they are referred to in this study.

According to Aileen et al (2016) knowledge acquisition refers to the process of acquiring, assimilating, and integrating new knowledge and information. He explicates that such achievements and outcomes should be beneficial to the individual and entire community as a whole. It aims at developing the child's physical skills and character, inculcating respect for elders and those in position of authority, developing intellectual skills, instilling vocational training and healthy attitude in the child, developing a sense of belonging, and participating actively in family and community affairs and understanding, appreciating, and promoting the cultural heritage of the community. Knowledge acquisition enables individuals to expand their understanding and expertise in specific areas or domains. Indigenous knowledge (IK) is today a popular word throughout the world. It has been interpreted in different ways at different places but generally it is understood as local or traditional knowledge that indigenous people have brought down with them from earlier times via the oral tradition. Indigenous knowledge (IK) is, broadly speaking, the knowledge used by local people to make a living in a particular environment (Warren 1991). As observed among the Moghamo people of the Batibi Sub-Division, the indigenes have their own language which they use to teach their children in the acquisition of knowledge. Terms used in the field of sustainable development to designate this concept include indigenous technical knowledge, traditional

environmental knowledge, rural knowledge, local knowledge and farmer's or pastoralist's knowledge. According to Johnson (1992) Indigenous knowledge is a body of knowledge built up by a group of people through generations of living in close contact with nature. Generally speaking, such knowledge evolves in the local environment, so that it is specifically adapted to the requirements of local people and conditions. It is also creative and experimental, constantly incorporating outside influences and inside innovations to meet new conditions. It is usually a mistake to think of indigenous knowledge as old-fashioned, backwards, static or unchanging. These knowledge inherently leads to the development of skills in activities such as wood fetching, farming, hunting, business, interpersonal relationships and most importantly respect for one another and authority.

In Africa, and specifically in the Batibo community, the younger generation is socialized into a range of traditional practices, including games, parent-child interaction and sibling care-giving, which serve as important standards for social behavior (Nsamenang, 1992). However, with the advent of formal schooling and the influence of Western education systems, there has been a noticeable shift in how Batibo people transmit knowledge from one generation to another. This can be due to the fact that parents are civil servants with white collar jobs who have little or no time to interact with their children. The introduction of modern education, coupled with the pervasive influence of globalisation, has created a complex interplay between socio-cultural practices and the acquisition of knowledge among Batibo children. This process of modernism or the adoption of cultural values and norms forms a significant part of the extinction of socio cultural practices among these young children, who are at the crossroads of traditional and modern worlds. This study therefore seeks to investigate how socio cultural practices leads to knowledge acquisition among children age 7 to 11 years old.

II. Statement of the Problem

Cultural heritage like the indigenous games in many Cameroonian communities, particularly among the Batibo people, is facing significant decline due to a narrow focus on science and modernism, which undermines traditional systems of knowledge transmission. This shift stems from the colonial and religious influences that instilled the belief that development must come from external sources, leading to the devaluation of indigenous ideas. The educational sector has been particularly affected, especially informal knowledge transmission practices,

which traditionally included the use of indigenous games, proverbs, and storytelling. Three key area of impact is the decreased use of indigenous games. As a result, there has been a significant reduction in the transmission of cultural knowledge, with many families preferring Western games and technology over traditional practices. This can be due to the following reasons: The widespread influence of Western media, including television, movies, and the internet, has led to greater exposure to Western lifestyles and activities, including games. Again, many Western games, particularly educational ones, are marketed with a focus on skill-building, such as enhancing cognitive abilities, problem-solving, and even learning new languages. Again, Parents may view these games as not only entertaining but also beneficial for their children's intellectual and social development. More, western games particularly those linked to big brands can be heavily marketed and easily accessible in stores, online, or through apps, often at a low cost or with free versions. Lastly, the ease of access and the visibility of these games can make them more appealing for parents who may not have access to traditional games or who may not know how to procure them. The loss of traditional games and storytelling not only hampers cultural knowledge but also diminishes essential values such as respect, integrity, and unity, which are crucial for social cohesion. These indigenous games foster skills like self-expression, teamwork, and collective identity, essential for healthy human development, particularly in children and adolescents. Without these experiences, children age 7 to 11 years within the Batibo community struggle to grasp cultural games and morals. The aim of the study is to explore the relationship between indigenous games and knowledge acquisition in Batibo, highlighting the urgency of addressing this cultural decline. If current trends continue, there is a risk of losing these vital practices entirely, adversely affecting the educational landscape. By examining these issues, the study seeks to raise awareness and encourage a reassessment of the community's approach to cultural preservation and education.

III. Literature Review

A study carried by Amlor (2016) on imparting indigenous knowledge through traditional forms of entertainment found out that indigenous games were very important in impacting traditional knowledge. The researcher indicate that the rules of the game though simple help in developing the cognitive and effective domains of the participants. The researcher further indicated the games which often incorporate music and dance performances, offer the youth or children the opportunity to unconsciously learn

lessons and societal ethics very quickly in a playful manner. Other values acquired from participating in these play games include: the ability of the young to cultivate good behaviour, tolerance, discipline, healthy spirit of co-existence, leadership qualities, hard work, and competitive spirit.

In study carried out by Wisahnyuy (2014) to investigate childhood play in a cross cultural perspective found that during childhood play children were involved in so many activities that portrayed a lot of originality which was one of the facets of creativity and knowledge transmission. They created new ideas; new items and they used familiar materials in unusual ways. Some of the material they used in an unusual way was charcoal which was used as paint. They came up with new ideas like the used of fresh tomatoes/strawberry for the production of blood which depicted their problem solving skills and the production of slippers using banana suckers. Again, it was found out that during play they focused, not only on one activity, children at times were involved in different activities at the same time and they also used a particular material for different purposes. For instance, they used mud in cooking, moulding shapes, pots, dough and chin chin.

Nyota and Mapara (2008) carried out a study amongst the Shona people of Zimbabwe, it was discovered that Shona traditional children's games and songs lead to and provided a rich environment or social context that sustains the flowering of children's curiosity and exploration of their immediate world as they play. The children explore the social context of games and play songs through guided apprenticeship that is greatly rewarding and motivational. The virtues and values learnt are varied and practical. Some of them are good behaviour, hard work, competition, handling success and failure and leadership. Ultimately, indigenous shapes how individuals socialize within their community as emphasized by Nsamenang (2016). Traditional education in Batibo is not merely a process of knowledge transfer; it is a comprehensive system that integrates various aspects of life, including social responsibilities, cultural heritage, and ethical conduct.

According to Tshele (2021) carried a study on the value of indigenous games in the teaching and learning of word problems in Grade 4 mathematics. The study indicated that learners can interpret, convert and link their indigenous knowledge with mathematics and improve their understanding of mathematics concepts when indigenous knowledge is incorporated. Again learners work better when given opportunities for interactive and collaborative activities that relate to their daily practices. These

indigenous games play a crucial role in the transmission of knowledge among children of Batibo societies. While facing challenges from modern influences, the significance of indigenous games remains profound.

Knowledge acquisition according to Aileen et al (2016) knowledge acquisition refers to the process of acquiring, assimilating, and integrating new knowledge and information. It involves actively seeking and obtaining knowledge through various means such as reading, research, training, playing and learning experiences. Knowledge acquisition enables individuals to expand their understanding and expertise in specific areas or domains. . Cultural knowledge involves recognizing and understanding one's cultural attributes, beliefs, values, practices, norms, traditions, and heritage, and how they are reflected in oneself (Ferdman, 1990, 2000). Indigenous knowledge transmission is gradually giving way and this process is affected by globalization, modernism, discrimination, and enculturation, underscores the importance of crafting a strong cultural knowledge (Baumeister, 1987).

Several studies have been carried out to investigate how socio-cultural practice leads to the acquisition of knowledge. Some of these studies focus on Cameroon while others examine broader African educational systems.

Studies carried out by Nsamenang (2005) and Achi (2021) found that the use of oral narratives, such as proverbs and folklore were very vital in the teaching of social norms and values. The researchers also stressed the importance of initiation rites in the transition from childhood to adulthood, which solidify one's understanding of their role within the community. In the same line, Gwanfogbe (2011) pointed out that traditional education promotes social cohesion by encouraging respect for elders and by fostering a sense of belonging to the community. He also indicates that the ritualized learning experiences (such as initiation rites) further solidify cultural values and collective identity.

Tchombe (2022) established that resilient cultural practices were significantly predictive of cognitive processes, reasoning, skills, and strategies. She further showed that the active role of children in their learning is not well captured or explained by theories or even empirical data but by learning pathways as models, oriented thinking, based on the fact that all activities children engage in, always have social, psychological, and physical implications for cognitive enrichment. The researcher also concluded that resilient cultural practices in the socialisation of the African child ensure the development of responsible,

leadership, and personal survival skills directed by African values and beliefs. These values and beliefs set out to encourage and promote socio-emotional skills to enable children to have control over their emotions through empathy.

In another study, Tchombe and Tani (2016) established that participation in indigenous games, use of folktales and proverbs contributed significantly in the development of problem-solving skills. The researchers further indicated that socialization leads to the acquisition of knowledge in many aspects such as knowledge of hospitality, knowledge of the sacredness of human life and of religion, knowledge of time, knowledge of respect for authority and the elders, and knowledge of language and proverbs.

Theoretically, the study made use of four major theories, Vygotsky's Socio-Cultural Theory (1978) , Mediated Mutual Reciprocity theory by Tchombe (2019), Nsamenang (2009) Social Ontogenetic Theory and an integrated theoretical framework for (cross-) cultural human development Dasen, (2003).

Lev Vygotsky's 1978 theory, often referred to as the Sociocultural Theory, emphasizes the fundamental role of social interaction and culture in cognitive development. Vygotsky argued that learning is deeply embedded in social contexts, and knowledge is co-constructed through dialogue and collaboration with others, particularly more knowledgeable individuals (such as teachers or peers). He introduced the concept of the *Zone of Proximal Development (ZPD)*, which refers to the difference between what a learner can do independently and what they can achieve with guidance or collaboration. Vygotsky also highlighted the importance of language as a tool for thought and a means of cultural transmission, asserting that cognitive development is shaped by both social and cultural influences. As observed within the Batibo community, children play games through interaction, collaboration, observation and imitation from older siblings. These therefore leads to the acquisition of knowledge among children.

Nsamenang's Social Ontogenetic Theory (2009) focuses on the developmental processes that shape individuals within specific cultural and social contexts. It emphasizes that human development is a lifelong process shaped by both biological and social factors, where social interactions and cultural practices play a central role in guiding developmental trajectories. Nsamenang posits that ontogenesis (the development of the individual) occurs through dynamic, reciprocal interactions between the individual and their environment, including family, community, and society. This theory stresses that development is not linear but culturally and

contextually specific, with different societies providing distinct pathways and milestones for personal growth. The theory also highlights the importance of social roles, collective goals, and communal practices in shaping how individuals learn, adapt, and grow throughout their lives. Within the Batibo community, cultural practice like games help in the development of children as they learn aspects of respect, collaboration, sharing interaction which confirms with Nsamenang's theory.

On the other hand, the Mediated Mutual Reciprocity Theory by Tchombe proposes and stresses the interactive and interconnected roles of the learners, the more knowledgeable others, and the environment in the process of knowledge transmission within the African traditional education. Participation of the learner is the key role in the theory and is oriented by the cultural beliefs about knowledge, parents' and children's expectations and aspirations. According to Tchombe (2019), the competencies and skills children employ in order to make meaning through shared activities have an enormous influence on the quality of mutual reciprocal behaviour they portray due to mediation. This theory therefore emphasises the role the interaction, participation, negotiations, monitoring task with the indigenous games children play. These practices leads to knowledge acquisition within the cultural environment and have been observed within the Batibo community in particular.

Finally, Dasen's Integrated Theoretical Framework (2003) presents a comprehensive approach to understanding human development that combines both universal and culturally specific aspects of growth. Dasen argued that while there are core, universal cognitive and developmental processes that apply across all cultures, the way these processes unfold is deeply influenced by cultural contexts. His framework integrates concepts from cognitive psychology, cultural anthropology, and developmental psychology to explore how cultural values, social norms, and environmental factors shape developmental outcomes. Central to Dasen's theory is the idea that development is not merely a biological process but is constructed through the interaction of individual capacities with cultural practices and social environments. This framework emphasizes the importance of considering both the universal dimensions of development and the culturally specific ways in which they are expressed and nurtured. During play within the Batibo community, children interact with one another, think of the rules and types of games to play which ties with Dasen's concept of cognitive psychology.

IV. Methods

A concurrent mixed-method approach was used in this study, combining qualitative and quantitative data collection to give a thorough account of how well children in Batibo sub Division acquire knowledge through the indigenous games that they play. However, the collected data were analysed separately. This research design was used because it combines both the in-depth, contextual views of qualitative research with the broader generalisations of larger population quantitative approaches, to produce a rigorous and credible source of data. Then, through triangulation, the design increased the validity of the research results as it provided room for the exploration or explanation of the findings from one approach with the data or results from another approach and also enhances the interpretation or understanding of the research. The sample of the study was made up of 377 children aged 7– 11years and 18 groups parents. Simple random sampling technique was used to select the children drawn from selected villages from Batibo Sub-Divisions. Purposive sampling technique was used to select the 18 groups of parents who were interviewed. This method was used to select the parents because the researcher intended getting information only from parents who are versed with Batibo tradition and culture and must have lived in Batibo for at least 14 years. Two instruments were used to collect data from the participants; questionnaire and a focus group discussion guide. The questionnaire was used to collect quantitative data from the children while the focus group discussion guide was used to collect qualitative data from the parents. The instruments for the study were validated in two phases, that is, face validity and content validity, in order to ensure absolute validity and reliability of the instruments. The researcher used the self-delivery method to administer the instrument. Collected quantitative data were analysed using descriptive and inferential statistics while the qualitative was analysed thematically. The quantitative data was analysed using the Statistical Package for Social sciences (SPSS) version 25 while the qualitative data was analysed thematically using Atlas Ti 6.0. For descriptive statistics, percentages, means and standard deviations were used while the inferential statistics for hypothesis verification made use of simple linear Regression Model. The ethical issues employed in order to protect the research participants and ensure validity of results included: informed consent, access to the research participants, non-falsification of data, avoiding plagiarism, anonymity and confidentiality, and creation of a conducive atmosphere.

V. Findings

The opinions of the respondents patterning to indigenous games and knowledge acquisition were grouped into two categories (agree and disagree) and presented in terms of frequencies, percentages, mean, and standard deviations as shown in table 1.

Table 1: Descriptive statistics for participation in indigenous games as a predictor of knowledge acquisition

Predictors	Agree	Disagree	Mean	Standard Deviation	
I often tabala with my friends	96.6%(363)	3.4%(13)	1.34	.581	376
I play dodging with my friends	94.1%(354)	5.9%(22)	1.34	.619	376
We often play boon echik bere kain	96%(357)	4.0%(15)	1.28	.579	372
I often play muru nebi	97.4%(366)	2.6%(10)	1.22	.474	376
I often play nohnyoh shet	91.5%(344)	8.5%(32)	1.50	.783	376
I often play tizeh-eoh	99%(372)	1.0%(4)	1.24	.495	376
I often engage in zizoh playing	95.8%(360)	4.2%(16)	1.32	.642	376
I often play mbang with my friends	97.4%(366)	2.6%(10)	1.27	.500	376
I engage in fixing and driving cars made out of bamboos with my friends	95.5%(359)	4.5%(17)	1.38	.642	376
We fight after playing	92.6%(348)	7.4%(28)	1.49	.704	376
MRS (Aggregate statistics)	95.6% (3 593)	4.4% (167)	1.34	.602	3760

Table 1 shows the descriptive statistics for participation in indigenous games as a predictor of knowledge acquisition by children age 11 – 17 years. The table indicates that with respect to the first item which reads “I often tabala with my friends”, 96.6% (363) of the respondents agreed that the often participate in the game giving a mean value of 1.34 (SD = .581) while 3.4% (13) respondents indicated that they don’t participate in this game. With regards to second item of the questionnaire which is “I play dodging with my friends”, 94.1% (354) of the respondents indicated that they play this game with a mean value of 1.34 (SD = .619) while 5.9% (22) said they don’t play this game.

With respect to the third item of the table which is “We often play boon echik bere kain” 96% (357) of the children agreed participating in the game while 4% (15) disagreed with it. The opinion of the respondents had a mean value of 1.28 and a standard deviation of .579. Looking at the fourth item on the table which read “I often play muru nebi”, 97.4% (366) respondents indicated that they often participate in playing this game with a mean value of 1.22 (SD= .474) while 2.6%(10)of the participants disagreed with the idea. Looking at the fifth item on the table “I often play nohnyoh shet”, 91.5% (344) of the participants agreed that they do play the game while 8.5% (32) of the children indicated that do not play the game. The responses had a mean value of 1.50 (SD =.783). With regards to the sixth component of table... which read “I often play tizeh-eoh”, majority of the respondents, 99% (372) indicated that the do play game while 1.0% (4) of the respondents said they do not play the game. The item had a mean value of 1.24 (SD = .495).

Looking at the seventh item on the table, “I often engage in zizoh playing”, 95.8% (360) of the respondents said they do play the game while 4.2%(16) indicated that don’t often play this game. The item had a mean value 1.32 (.642). The eighth item of the table read “I often play mbang with my friends”, 97.4% (366) of the children indicated that the participate in this game with friends while 2.6%(10) said they do not often play the game giving a mean value of 1.27 (SD= .500). Looking at the ninth component of the table, “I engage in fixing and driving cars made out of bamboos with my friends” 95.5%(359) of the respondents agreed that they often participate in this activity while 4.5%(17) said they do not often participate in the game. The responses gave the item a mean value of 1.38 (SD = .642). Finally, the last item of the table which read “We fight after playing” 92.6%(348) agreed with the opinion giving a mean value of 1.49 (SD = .704) while 7.4%(28)disagreed to the idea.

In conclusion, the aggregate score (MRS) of the table indicated that majority 95.6% (3 593) of the children often participate in indigenous games while only 4.4% (167) of the children did not often take part in playing indigenous games. The overall mean for the predictors was 1.34 with a standard deviation of .602. This shows that the responses of the participants were tilted towards agree, indicating participation in indigenous games.

Table 2: Analytic framework for focus group discussion for participation in indigenous games

Question	Theme	Code Description	Example Quotes
Based on your experiences in your community, what can you say about the different types of 'Indigenous games' that your children engage in?	Variety and Types of Indigenous Games	Participants opinions about indigenous games practiced in the community	<ul style="list-style-type: none"> ➤ They are variety of games children often engage in such as boon echik bere kain, nuru nebi etc. ➤ my children often play games such as tabala
	Cultural Significance		<ul style="list-style-type: none"> ➤ These games are a crucial part of our cultural ceremonies and teach children our language and stories. ➤ Participation in boon echik bere kain enable children to learn aspects of culture
	Educational Value		Through these games, children learn to count, measure, and understand natural phenomena.
	Social Interaction and Community Bonding		Playing these games helps children learn to work together and resolve conflicts peacefully.
	Physical and Mental Health		The physical activities involved in these games keep children fit and mentally sharp.
	Challenges and Changes Over Time		With the rise of digital games, fewer children are participating in traditional games, but community events are helping to revive interest.

Table 3: Analytic framework for responses of the focus group discussion patterning to the participation in indigenous games and knowledge acquisition

Question	Theme	Code Description	Example Quotes
How does children's engagement in indigenous games lead to knowledge acquisition?	Cultural Knowledge and Identity	Participants opinions on how indigenous games influence language acquisition	"My child has learned many traditional stories and songs through these games."
	Cognitive and Physical Development		"These games require children to think critically and remember complex rules." "Games that involve running and jumping have improved my child's physical fitness."
	Social and Emotional Skills		"Playing in teams has taught my child how to work well with others and resolve conflicts."
	Educational Integration		"My child has learned to count and recognize shapes through these traditional games."
	Resilience and Coping Mechanisms		"Losing in games has taught my child to handle failure gracefully and try again."
	Practical Life Skills		"These games teach children practical skills like measuring and using local materials."

Table 4: Simple linear regression analysis for participation in indigenous games as a predictor of knowledge acquisition

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
(Constant)	7.601	.690		11.014	.000	6.244	8.958		
Indigenous Games	.536	.049	.489	10.852	.000	.439	.634	1.001	1.002

Dependent Variable: Knowledge Acquisition

Simple linear regression analysis was conducted to evaluate the extent to which indigenous could predict knowledge acquisition in children (11 – 17). A dataset encompassing 376 individuals was analysed, correlating indigenous games to respective knowledge acquisition. The average level of participation in indigenous games within the sample was 13.48 (SD = 3.625), and the average knowledge acquisition was 14.84 (SD = 3.973). The linear regression analysis revealed a statistically significant model ($F(1,375) = 117.733$, $p < .000$), with an R^2 value of 0.239 suggesting that 23.9% of the variance in knowledge acquisition was explained by participation in indigenous games among the sampled children. Further, the regression coefficient for knowledge acquisition was found to be 0.536, with a standard error of 0.049. This indicates that for each additional unit in participation in indigenous games, there is an average increase of 0.536 units in knowledge acquisitions. This positive relationship between participation in indigenous games and knowledge acquisition was found to be statistically significant ($t(375) = 10.852$, $p < .001$), affirming the predictive power of participation on knowledge acquisition. The results also showed that we are 95% confident that the coefficient of the regression equation lies between .439 and .634. This results gave a significant regression equation given by knowledge acquisition = $7.601 + 0.536 \times \text{indigenous games}$.

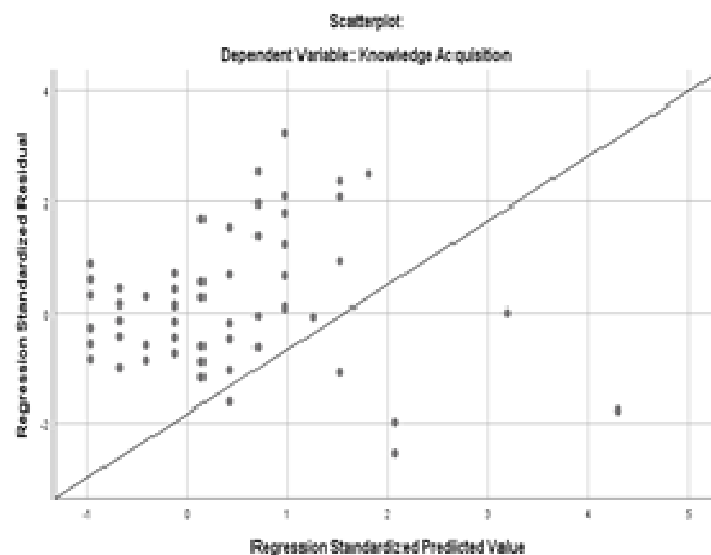


Figure 1: Normal P-P Plot of Regression Standardised Residual Dependent variable: Knowledge Acquisition

In addition to the regression analysis, a scatterplot with the fitted regression line were examined to ensure model assumptions were met. The residuals were normally distributed (Shapiro-Wilk $W = .98$, $p = .203$), homoscedasticity was confirmed by examining the P- P plot for the data set (Breusch-Pagan $\chi^2 = 1.92$, $p = .166$), and the residuals appeared to be independent (Durbin-Watson $D = 1.85$, $p = .486$). To verify the absence of multicollinearity, the variance inflation (VIF) factor was examined. The results of the test gave a variance inflation factor of 1.002 and collinearity tolerance value of 1.001.

Table 5: Integrated value mapping showing the impact of background indicators and participation in indigenous games as predictors of knowledge acquisition

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
(Constant)	14.142	3.528		4.009	.000	7.205	21.078		
Sex	-.483	.381	-.060	-1.265	.207	-1.233	.267	.889	1.124
Age range	3.766	1.847	.145	2.039	.042	.135	7.397	.396	2.523
Type of School	-2.559	1.221	-.148	-2.095	.037	-4.960	-.157	.403	2.479
Type of Home	-1.640	.616	-.134	-2.664	.008	-2.851	-.430	.791	1.265
Respondents' class	.583	.339	.078	1.716	.087	-.085	1.250	.970	1.031
Indigenous Games	.497	.052	.454	9.634	.000	.396	.599	.904	1.106
Dependent Variable: Knowledge Acquisition									

A linear regression was fitted to explain knowledge acquisition based on gender of child, type of school, type of home and participation in indigenous games. All the assumptions of linear regression were verified. The overall model explains 25.8% variation of knowledge acquisition, and it was significantly useful in predicting knowledge acquisition, $F(5, 370) = 25.728$, $p < .05$.

With one-unit increase in sex, knowledge acquisition level decreases by -.483, which was found not to be a significant change, $t(370) = -1.265$, $p < .05$. With one unit increase in age range, knowledge acquisition increases by 3.766, which was found to be a significant change, $t(371) = 2.036$, $p < .05$. With one-unit increase in type of school, knowledge acquisition decreases by -2.559, which was found to be a significant change, $t(370) = -2.095$, $p < .05$. With one unit increase in respondents' class, knowledge acquisition increased by .583 which is not a significant change $t(370) = 1.716$, $p = .087$. A one unit increase in type of home, knowledge acquisition decreases by -1.640 which was a significant change $t(370) = -2.664$, $p < .05$. Finally, the table shows that for any one unit increase in participation in indigenous games, knowledge acquisition increases by .497 which was found to be a significant change $t(370) = 9.634$, $p < .05$.

These results emphasize the significance of participation in indigenous games as a determinant of knowledge acquisition. The apparent linear trend observed in the scatterplot, alongside the significant regression coefficient, underscores the importance of considering participation in indigenous games in predicting knowledge acquisition. In conclusion the linear regression results lead to the rejection of the null hypothesis (H_0) in favour of the alternate hypothesis, there is a significant relationship between indigenous games and knowledge acquisition in children aged between 7 – 11 years.

Analysis of qualitative data patterning to influence of participation in indigenous games on knowledge acquisition in children between 7 – 11 years

With regards to the first indicator of the independent variable, the participants of the focus group discussion were asked the question "Based on your experiences in your community, what can you say about the different types of 'Indigenous games' that your children engage in?" The following table gives the analytical framework for the responses of the parents who took part in the focus group discussion.

VI. Discussion of findings

The results of the simple linear regression analysis showed that the indigenous games influence

knowledge acquisition among children within the Batibo community. The findings from the qualitative analysis showed that Batibo educational values lay emphasis on the transmission of cultural knowledge, history, and values, respect for elders and ancestors, promotion of critical thinking, inquiry and problem-solving skills and the promotion of moral and ethical values from one generation to the next. These findings are supported by Nsamenang (2005) and Achi (2021) who saw that the use of oral narratives, such as proverbs and folklore were very vital in the teaching of social norms and values and stressed the importance of initiation rites in the transition from childhood to adulthood. The findings are also corroborated by Gwanfogbe (2011) who indicated that traditional education promotes social cohesion by encouraging respect for elders and by fostering a sense of belonging to the community.

Also, Amlor (2016) who revealed that participation in indigenous games help children develop cognitive and affective skills. The researcher further indicated that participating in games that incorporate music and dance performances, offer the youth or children the opportunity to unconsciously learn lessons and societal ethics very quickly in a playful manner, acquired values such as good behaviour, tolerance, discipline, healthy spirit of co-existence, leadership qualities, hard work, and competitive spirit. The findings are also corroborated by those of Tshele, et al (2021) who found out that indigenous games helped children to easily acquire mathematics skills.

The findings of the qualitative data showed that most children in the Batibo Sub Division participated in several indigenous games such as tabala, mbang, boon echik bere e.t.c. and that participation in these games impact knowledge acquisition in various ways amongst the participants. In particular, it was observed that participation in indigenous games influence knowledge acquisition by enhancing the development of problem solving skills, social and emotional skills, cognitive and physical development and cultural knowledge and identity of the children. These findings are supported by those of Clarke (1984), Tshele, et al (2021) and Wisahnyuy (2014). All three researchers indicated that participation in indigenous games fosters creative thinking in children and hence their problem solving skills and cognitive development.

Wisahnyuy (2014) on her part revealed more interesting findings similar to the ones of the present study were participation indigenous games enable children to create new ideas, new items and used familiar materials in unusual ways. These findings are also, supported by the underpinning of the theory of

social ontogenesis by Nsamenang (2016) which indicates that through social interaction with peers children are able to gain knowledge by imitating each other.

Tchombe (2022) found out that cultural practices are significantly predictive of cognitive processes, reasoning, skills, and strategies. These resilient cultural practices are inherent within the traditional educational values. The researcher indicated that the development of cognitive skills and processes was enhanced by cultural practices of sense of responsibility and personal survival skills. She also pointed out that through socio-emotional and moral practices like indigenous games and play and songs, children were able to develop cognitive strategies in interpersonal relations. Within the Batibo community, play enable children to acquire knowledge of reasoning, skills and strategies which are in line with cognitive processes postulated by Tchombe.

VII. Implication of the Findings

The findings of the study have both practical and theoretical significance for stakeholders, parents, school authorities, and community leaders in the Batibo Sub-Division in particular, in Momo Division of the North West Region and Cameroon in general and the world at large. Its findings enhance the existing literature on the role of indigenous games in children's knowledge acquisition. The research underscores the importance of preserving and promoting children's engagement in indigenous games and their socialization within Moghamo communities, as well as other non-Western contexts, to support learning and knowledge acquisition strategies.

The study offers valuable insights into the indigenous games of the Moghamo people, contributing to the documentation and understanding of their traditional methods of knowledge transmission. This information can serve as a resource for scholars and policymakers interested in child-rearing practices and child development among the Moghamo people of the Batibo Sub-Division.

Furthermore, the study explores how participation in indigenous games affect knowledge acquisition among children aged 7 to 11 in Moghamo communities, and by extension, in the North West Region of Cameroon and beyond. The multi-dimensional approach of this research provides a comprehensive view of knowledge acquisition, offering insights that surpass the traditional, Western-centric educational explanations. The findings illuminate the specific role of indigenous games in knowledge transmission within indigenous communities, adding depth to our understanding of

how knowledge acquisition is influenced beyond Western educational frameworks.

- By examining how participation in indigenous games influence knowledge acquisition, the study has provided insights into how cultural practices shape cognitive and educational outcomes in children 7 – 11 years within the African context. The research highlights the importance of integrating culturally relevant practices into educational theories. It challenges and/or reinforces existing educational theories by showing how local socio-cultural practices impact children's learning and knowledge acquisition. The present findings provide insights into how indigenous games and family interactions contribute to cognitive development and add to the literature on developmental psychology, especially in non-Western contexts.
- The findings could inform educational policy and curriculum development in Cameroon and similar contexts. Incorporating indigenous games and culturally relevant practices into school curricula might enhance learning outcomes and make education more engaging and meaningful for children.
- By documenting and valuing indigenous games and practices, the study may contribute to the preservation of cultural heritage. Educational programs and community initiatives can use these findings to maintain and promote local traditions while integrating them into modern education.
- The research can guide the design of intervention programs aimed at improving children's knowledge acquisition. For instance, educators and policymakers might develop workshops or resources that leverage indigenous games and family dynamics to enhance learning.

VIII. Conclusion

The findings of this study are outstanding as they have revealed a significant insight as they brought out the impact of indigenous games on knowledge acquisition in children aged 7 – 11 years in Moghamo communities of the Batibo Sub Division. The findings confirm the hypothesis that there is a significant relationship between indigenous games and the acquisition of knowledge among children age 7 – 11 years in the Batibo Sub Division. Using simple linear regression analysis, the study was able to demonstrate how indigenous games predict knowledge acquisition skills in children within the specified age group. The results of the simple regression analysis demonstrated a strong relationship between indigenous games and knowledge acquisition among children aged 7 – 11

years. The regression model for indigenous games, showed a statistical significant influence of the indicator on knowledge acquisition. Further the qualitative data obtained from the focus group provided rich explanations into how *participation in indigenous games leads to knowledge acquisition in various ways*.

By focusing on Batibo children, the research has contributed an understanding on how indigenous games play a role in maintaining cultural knowledge and transmission in context of modern educational systems and globalization. The significant influence of indigenous games are indicated by the findings, suggest the incorporation of cultural education by educational stake-holders in Batibo and other indigenous Communities into the school curricula, in order to enhance continuity to their heritage. Also, educational policies that emphasise traditional educational games should help children to build a stronger sense of cultural pride, which will potentially lead to improved self-esteem and academic performance.

IX. Recommendations

Grounded on the findings, the researchers made the following recommendations:

- Parents should actively involve children in traditional games that are prevalent in the Moghamo culture. This engagement will help children learn cultural values and enhances cognitive and social skills. For example, games that involve counting or strategic thinking can reinforce numeracy and problem-solving skills.
- Parents should also show enthusiasm for traditional games and participate alongside their children to foster a positive attitude towards these activities. While promoting indigenous games, they should ensure children also have access to modern educational tools and resources to provide a well-rounded education.
- Elites and community leaders can advocate for the inclusion of indigenous games in cultural events and educational programs. This can help preserve cultural heritage and promote its educational value. They can promote and invest in the development of community spaces where children can play traditional games safely and learn from community elders.
- School authorities in Moghamo communities can incorporate indigenous games into the school curriculum as a means of teaching various subjects, such as math, history, and social skills. Teachers who are not from the Moghamo culture and are teaching in these schools could be

provided with training on how to use indigenous games as educational tools and integrate these games into classroom activities.

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